

# *Project Baseline Summary Report*

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Lovelace Respiratory Research Institute**

Project **AL005 / Lovelace Biomedical & Environmental Research Institute**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0125**

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## **General Project Information**

### **Project Description Narratives**

#### **Purpose, Scope, and Technical Approach:**

Definition of Scope: EM-30 - Waste Management operations at ITRI include the planning, oversight, treatment, storage, and disposal activities required for compliant management of wastes generated during the DOE research funded activities. Yearly activities include:

a) Maintain required personnel training, b) Maintain required reporting and record keeping, c) Maintain small quantity generator status for hazardous waste, d) Ship hazardous waste (4.0 metric tons) offsite for treatment and disposal, e) Ship low-level waste (30 cubic meters/yr.) offsite for disposal at the Nevada Test Site, f) Ship mixed waste (1.0 cubic meters/yr.) from scintillation vials offsite for treatment and disposal, g) Ship TRU waste (0.5 cubic meters/yr.) to Sandia National Laboratory/New Mexico for interim storage, h) Operate the ITRI crematory for treatment and disposal of non-hazardous, non-radioactive, and non-infectious biomedical waste (2,500 lbs./yr.). There is no legacy waste.

EM-40 - Environmental Restoration activities include the monitoring and surveillance of remediated sites (lab waste collection ponds, sewage lagoon ponds, and UST diesel spill site). The Lab Waste Collection ponds and the Sewage Lagoon Ponds have been closed out by the New Mexico Environmental Department (NMED) and the DOE, although groundwater monitoring of these remediated sites is still required by NMED. The Diesel Spill site is still open since diesel product is occasionally being detected in the groundwater below the site. In addition to groundwater sampling, the ITRL also performs annual sampling of air emissions from the facility to meet the requirements of the EPA NESHAP regulations.

Technical Approach: EM-40 - For the Sewage Lagoon and Lab Waste Collection Pond sites, groundwater monitoring is done under Discharge Plan DP-519 which stipulates that active remediation of the groundwater plume shall be done if the concentrations of contaminants (nitrates) have not decrease by October of 1999. For the UST Diesel Spill site, groundwater monitoring will continue until contaminants (diesel products) are below action levels for eight (8) consecutive quarters or at which time the NMED approves discontinuation of monitoring.

EM-30 - Wastes are first segregated, characterized, and contained in the laboratory by site personnel prior to EM-30 acceptance. The main regulatory drivers for EM-30 wastes are RCRA and DOE Orders. .5 cubic meters of TRU waste may be accumulated per year. This waste is packaged to meet SNL/NM criteria for acceptance and then shipped to SNL/NM for interim storage until shipment to a disposal site. Low level waste, consisting of biological, demolition and lab waste, are either frozen, compacted or solidified, accumulated onsite and then shipped to the Nevada Test Site for disposal. A small amount of mixed waste is generated during research activities. This waste is being stored onsite in compliance with small quantity generator limits prior to disposal at a commercial facility. ITRI is a small quantity generator of hazardous waste as defined by RCRA. This waste is temporarily stored onsite for up to 270 days and then shipped offsite to commercial recycling facilities or RCRA treatment and disposal facilities. ITRI continues to institute pollution prevention and waste minimization to assist in eliminating or minimizing waste generated and managed. Waste management provides the technical services of compliant treatment, storage and disposal of these wastes.

#### **Project Status in FY 2006:**

EM-40 - Completely cleaned site. Completion of surveillance and monitoring activities.

EM-30 - ITRI will continue to manage DOE generated waste as long as a DOE mission continues to exist under the Cooperative Agreement. There is no legacy waste

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## **Project Description Narratives**

### **Post-2006 Project Scope:**

EM-40 - N/A.

EM-30 - ITRI will continue to manage DOE generated waste as long as a DOE mission continues to exist under the Cooperative Agreement.

### **Project End State**

EM-40 - Completely cleaned and closed site with no surveillance and monitoring activities required.

Land - All land contamination cleanup levels have been achieved (based on RESRAD industrial scenarios for Sr-90 and Cs-137; approved by DOE/AL) All contaminated soil was shipped off site.

Groundwater - Contamination is slightly above the cleanup level of 10ug/L set by NMED. Natural attenuation of the nitrates is expected to reduce levels below the cleanup standard. Monitoring will last until these levels have been achieved for a minimum of 8 quarters in a row of sampling.

Groundwater monitoring is projected to be complete by 2006. The facility and structures are owned by Energy Research and are not currently part of the EM program.

Facilities - N.A. No facilities have been identified for cleanup.

EM-30 - ITRI will continue to manage DOE generated waste as long as a DOE mission continues to exist under the Cooperative Agreement. There is no legacy waste

### **Cost Baseline Comments:**

Costs include both EM-40 total project dollars and EM-30 dollars. EM-40 baseline costs are expected to be final 2006. Costs are based on historical costs for the same activities and includes no contingency.

### **Safety & Health Hazards:**

N.A. No significant safety and health vulnerabilities identified.

### **Safety & Health Work Performance:**

N.A. No significant safety and health vulnerabilities identified.

### **PBS Comments:**

EM-40 -The ITRI environmental restoration project is completed with the exception of long-term surveillance and maintenance. All closure are pending regulatory approval.

EM-30 - The main objective of waste management at ITRI is to manage hazardous and radioactive waste generated from DOE activities, minimize waste generated from all activities, and handle all generated waste in an environmentally sound manner. The main regulatory drivers for EM-30 wastes are RCRA and DOE Orders.

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## Project Description Narratives

Treatment includes on-site compaction, solidification and simple neutralization.

ITRI will continue to operate under the Cooperative Agreement agreed to for the period of FY97-FY02 with option to renew.

### Baseline Validation Narrative:

A MSA (Major System Acquisition) validation on AL operations occurred in 1992. The baseline/project was validated by headquarters personnel with support contractors.

A combined WM/ER baseline was submitted, validated and approved by AL (WM/ER/BRMD) for FY 98.

## General PBS Information

Project Validated?	Yes	Date Validated:	10/2/1997
Has Headquarters reviewed and approved project?	No		
Date Project was Added:	12/1/1997		
Baseline Submission Date:	7/1/1999		
FEDPLAN Project?	Yes		

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	N	Y	N	N	N	Y	Y	N

## Project Identification Information

DOE Project Manager:	Harish Sharma
DOE Project Manager Phone Number:	505-845-4275
DOE Project Manager Fax Number:	505-845-6286
DOE Project Manager e-mail address:	hsharma@doeal.gov
Is this a High Visibility Project (Y/N):	

## Planning Section

### Baseline Costs (in thousands of dollars)

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	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
PBS Baseline (current year dollars)	6,248	22,069	28,317	1,169	1,670	748	789	478	481	562	562	562	562	562	562	
PBS Baseline (constant 1999 dollars)	5,918	10,833	16,751	1,169	1,670	748	789	478	468	536	525	514	504	493	483	
PBS EM Baseline (current year dollars)	6,248	22,069	28,317	1,169	1,670	748	789	478	481	562	562	562	562	562	562	
PBS EM Baseline (constant 1999 dollars)	5,918	10,833	16,751	1,169	1,670	748	789	478	468	536	525	514	504	493	483	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	436	433	432	430	1,980	1,923	1,869	1,815	1,763	1,711	1,662	1,614	1,567	1,522	1,477	1,435
PBS Baseline (constant 1999 dollars)	367	357	349	340	1,471	1,289	1,128	988	865	756	662	580	507	445	389	340
PBS EM Baseline (current year dollars)	436	433	432	430	1,980	1,923	1,869	1,815	1,763	1,711	1,662	1,614	1,567	1,522	1,477	1,435
PBS EM Baseline (constant 1999 dollars)	367	357	349	340	1,471	1,289	1,128	988	865	756	662	580	507	445	389	340

## Baseline Escalation Rates

<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
0.00%	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
<b>2010</b>	<b>2011-2015</b>	<b>2016-2020</b>	<b>2021-2025</b>	<b>2026-2030</b>	<b>2031-2035</b>	<b>2036-2040</b>	<b>2041-2045</b>	<b>2046-2050</b>	<b>2051-2055</b>	<b>2056-2060</b>	<b>2061-2065</b>	<b>2066-2070</b>

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2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

## Project Reconciliation

### Project Completion Date Changes:

Previously Projected End Date of Project: 9/1/1970

Current Projected End Date of Project: 9/30/1997

#### Explanation of Project Completion Date Difference (if applicable):

AL has had a problem with reconciliation of this PBS in the proper manner. On many different occasions, the cost figures for FY 97&98 have changed for unknown reasons, leaving a different amount to be reconciled.

### Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	16,662	Actual 1997 Cost:	1,670	Actual 1998 Cost:	789
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	14,203	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):			383
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	14,586				

### Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):	30	Due to HQ directed funding cuts which occurred Nov 1997 thru Jan 1998.
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	217	FY99 - Waste Mgmt \$217k- - Acid Digest Sample Disposal; Clean-up of 12 labs; Air Permit
Cost Growth Associated with Scope Previously Reported (+):	59	FY00 - Environmental Restoration \$59K -- Growth in overhead costs
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	14,832	
Additional Amount to Reconcile (+):	2	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	14,834	

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## Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Complete Surveillance and Monitoring	01		9/30/2006	9/30/2006						Y	
Remediation Complete			9/30/1997	9/30/1997							
Project Start Date			9/1/1990								
Project Start Date			9/1/1990								
Waste Management Continuous Operations			9/30/2070								

## Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Complete Surveillance and Monitoring	01						2	2	1		Complete groundwater monitoring of site (8 consecutive quarters of no detect)
Remediation Complete					Y						
Project Start Date				Y							Date project started.
Project Start Date										Y	Date project started.
Waste Management Continuous Operations						Y					Waste management activities will continue as long as the cooperative agreement remains in place.

## Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
<b>RS</b>														
Assess.	NR	0.00	0.00	0.00	9.00									
<b>RS</b>														
Cleanup	NR	0.00	0.00	0.00	9.00									

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## Performance Measure Metrics

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
TRU														
Storage	M3							0.30	0.30	0.30	0.30	0.30	0.30	0.30
MLLW														
Storage	M3							0.00	0.00	0.00	0.00	0.00	0.00	0.00
MLLW														
Comm. Disp.	M3	8.00	64.00	72.00	0.00		0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
LLW														
Treatment	M3	553.00	3,909.00	4,462.00	0.00		0.00	73.00	60.00	60.00	60.00	60.00	60.00	60.00
LLW														
Storage	M3							18.00	18.00	18.00	18.00	18.00	18.00	18.00
LLW														
Ship to DOE Disp.	M3	321.00	1,993.00	2,314.00	0.00		0.00	73.00	31.00	31.00	31.00	31.00	31.00	31.00
Haz.														
Commercial	MT	0.00	0.00	0.00	0.00		0.00							
Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035	
RS														
Assess.	NR													
RS														
Cleanup	NR													
TRU														
Storage	M3	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.00	0.00	

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Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035
<b>MLLW</b>													
Storage	M3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>MLLW</b>													
Comm. Disp.	M3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	5.00	5.00	5.00	5.00
<b>LLW</b>													
Treatment	M3	60.00	60.00	60.00	60.00	60.00	60.00	60.00	300.00	300.00	300.00	300.00	300.00
<b>LLW</b>													
Storage	M3	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
<b>LLW</b>													
Ship to DOE Disp. Haz.	M3	31.00	31.00	31.00	31.00	31.00	31.00	31.00	155.00	155.00	155.00	155.00	155.00
Commercial	MT												
Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total			
<b>RS</b>													
Assess.	NR									9.00			
<b>RS</b>													
Cleanup	NR									9.00			
<b>TRU</b>													
Storage	M3	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
<b>MLLW</b>													
Storage	M3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
<b>MLLW</b>													
Comm. Disp.	M3	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00	71.00			

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Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	Lifecycle Total
<b>LLW</b>										
<b>Treatment</b>	M3	300.00	300.00	300.00	300.00	300.00	330.00	339.00	0.00	4,338.00
<b>LLW</b>										
<b>Storage</b>	M3	18.00	18.00	18.00	18.00	18.00	18.00	0.00	0.00	
<b>LLW</b>										
<b>Ship to DOE Disp. Haz.</b>	M3	155.00	155.00	155.00	155.00	155.00	155.00	164.00	0.00	2,273.00
<b>Commercial</b>	MT									14.50

## Release Sites

Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
LRRI	0001		DIESEL SITE 1 \ DIESEL SITE 1; 2 UST'S	Tanks/Underground Storage Tanks			4/5/1993			7/21/1995		Y		N
LRRI	0002		DIESEL SITE 2 \ DIESEL SITE 2; 2000 GAL SPILL	Spills and Leaks/Surface Spills			4/5/1993			7/21/1995		Y		N
LRRI	0003		DIESEL SITE 3 \ DIESEL SITE 3; UST SITE	Spills and Leaks/Pipeline Leaks			4/5/1993			7/21/1995		Y		N
LRRI	0004		DIESEL; SITE 4 \ DIESEL SITE 4; 2 UST'S	Tanks/Underground Storage Tanks			4/5/1993			7/21/1995		Y		N
LRRI	0005		DIESEL SITE 5 \ DIESEL SITE 5; FUEL LINE LEAK	Spills and Leaks/Pipeline Leaks			4/5/1993			7/21/1995		Y		N
LRRI	0006		BIOVENTING INTERIM ACT \ BIOVENTING INTERIM ACTION	Surface and Groundwater/Groundwa ter Plumes			4/5/1993			3/11/1994		Y		N
LRRI	0007		HOT PONDS \ HOT PONDS REMEDATION	Liquid Surface Impoundments/Holding Ponds			5/11/1992			6/30/1995		Y	Approved	Y

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LRRI	0008		SANITARY LAGOONS \ NITRATES IN GROUNDWATER	Surface and Groundwater/Groundwater Plumes			8/26/1993			9/30/1996		Y		N
LRRI	0009		SANITARY LAGOONS (6) \ SANITARY LAGOONS (6); SLUDGE REMOVAL	Liquid Surface Impoundments/Lagoons			11/30/1994			9/30/1996		Y	Approved	Y